omega HHSL-101 USB Digital Sound Level Data Logger User Guide

OMEGA®

1 YEAR
WARRANTY

HHSL-101
USB Digital Sound Level
Data Logger
User's Guide

Contents

HHSL-101 USB Digital Sound Level Data Logger

omega.com
info@omega.com
Servicing North America:
U.S.A.: Omega Engineering, Inc., One Omega Drive, P.O. Box 4047
Stamford, CT 06907-0047 USA
Toll-Free: 1-800-826-6342 (USA & Canada only)
Customer Service: 1-800-622-2378 (USA & Canada only)
Engineering Service: 1-800-872-9436 (USA & Canada only)

Tel: (203) 359-1660 Fax: (203) 359-7700
e-mail: **info@omega.com**
For Other Locations Visit **omega.com/worldwide**

INTRODUCTION

Thank you for purchasing the HHSL-101 USB Digital Sound Level Data Logger. Please read this user's manual carefully and thoroughly before using the instrument.
The HHSL-101 is a low-cost, compact, battery-powered sound level meter capable of unattended logging (recording) of the decible level of an environment for days, weeks, or months. Data logging can be started or stopped by pushing a button on the unit, eliminating the need to bring a laptop to the job site.
Windows® 7 and Windows® XP are registered trademarks of Microsoft Corporation.
After a data log has been captured and stored, it can be uploaded as a .txt file to any PC running the Windows® 7 or Windows® XP operating system after plugging the HHSL-101 into one of the computer's USB ports. The HHSL-101's internal flash memory is large enough to store up to 32000 data points. Included with the product—which is slightly larger than a thumb drive—is a mini-disc with the drivers needed to interface the unit to the computer, as well as software that can display a data log file as a table or graph and/or export it to Microsoft Excel. Exporting to Excel is recommended for sophisticated trending and analysis of sound level data and easy detection of unexpected excursions.

KEY FEATURES

- One button starts/stops data logging without a PC
- Plug-and-play USB 2.0 interface; no need for cables, cradles or docks
- Large storage capacity offers the ability to track, store, and download 32,000 data points into Excel-Format.
- LCD displays real time sound level
- A/C frequency weighting
- FAST/SLOW time weighting
- MAX/MIN/AVG displays
- High and low alarm limit, selectable sampling time
- Ability to analyze data in graph view using included software and also print or save the results.

SAFETY INSTRUCTION

Do not use the HHSL-101 in the presence of flammable or explosive gases.

WHAT'S IN THE PACKAGE

The HHSL-101 comes in a blister pack containing:

- The instrument (with included "1/2 AA" battery)
- A disc with software drivers for Windows® 7 or Windows® XP computers, a program for capturing data logs and displaying them as curves, a software installation and operation manual, a PDF of this user's manual
- A stand to mount the instrument
- A USB extension cord
- A hard copy of this user's manual (inside the fold-over card)

PRODUCT OVERVIEW

Fig. 1 shows the main components, controls, display and connectors of the HHSL-101. names and functions before moving on to the Setup Instructions.

Fig. 1

A. Microphone
B. Function button
C. LCD
D. Protective cap
E. Full-size USB plug

SETUP INSTRUCTIONS

INSTALL THE BATTERY

The HHSL-101 uses a 3.6VDC “1/2 AA” Lithium-ion battery (included). To open the battey compartment, use a screwdriver with a fine point to push in the silver flange showing through the small square hole in the rear of the unit.

Push back the cover, insert a fresh battery in the correct orientation, and replace the cover, pushing it forward until you feel and hear a click.

Note: If the battery is removed from a unit before it has been set up from software or while it is recording, the unit must be reconfigured before it can be reactivated. If it is not reconfigured, the unit will remain in standby mode.

Replacement “1/2 AA” batteries are available from Omega (part no. OM-EL-BATT).

SOFTWARE, DRIVERS, CONFIGURATION

Please refer to the software manual on the CD for installation, configuration and operating instructions.

OPERATING INSTRUCTIONS

DEPLOY THE UNIT

The HHSL-101 is particularly easy to deploy on a job site because the unit does not need to be plugged into a computer to be activated (ready to start logging data). The HHSL-101— with its protective cap on—can be deployed either by laying it on a horizontal surface or by mounting it onto the stand provided.

BUTTON FUNCTIONS

To turn on the device, press and hold the unlabeled yellow Function button (Fig. 1, Callout B) for 3 seconds. If the

device has not yet been activated, this operation will activate the device and the LCD will display Log. If the device is already activated, this operation will deactivate the logger and the LCD will display Con. If the memory is full, the LCD will display FUL during recording. The data logger has 5 display modes which are Normal, Max, Avg and Status. Press the button briefly to switch between these modes.
Normal: displays current sound level
Max: displays the maximum reading recorded since activation of this mode
Min: displays the minimum reading recorded since activation of this mode
Avg: displays the average value of readings recorded since activation of this mode
Status: displays status of the device
Log: currently logging data
Con: inactive; connect to computer to configure for next data logging session
Ful: memory is full — configured and ready to start logging

SPECIFICATIONS

Range: 30~130dB Resolution: 0.1dB Accuracy: ±1.5dB
Max capacity: 32000 data points Link Protocol: USB 1.0/2.0
Power supply: DC3.6V Li Battery Capacity: 1200mAh
Working current: <1mA
Operating temperature: 32° to 122°F (0° to 50°C)
Operating humidity: 10-90%RH non-condensing
Storage temperature: 14° to 122°F (-10° to 50°C), 5% to 95%RH w/o battery
Dimensions: 7.09 x 1.10 x 1.06 in. (180 x 28 x 27 mm)
Weight: 2.01 oz. (57g) w/o battery

MAINTENANCE TIPS

- Avoid dropping the unit. Do not subject it to violent shock or vibration or expose it to strong electromagnetic fields (for example, near arc welders or induction heaters).
- Keep the unit out of direct sunlight.
- Do not use chemicals or abrasive cloth to clean the display window or housing.
- Before storing the HHSL-101 for an extended period of time (several months or more), remove the battery to avoid having it leak and damage the unit.

WARRANTY/ DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of 13 months from date of purchase. OMEGA's Warranty adds an additional one (1) month grace period to the normal one (1) year product warranty to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.
If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.
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Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR NON-WARRANTY REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. PurchaseOrder number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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 MU Industrial Water & Wastewater Treatment

 MU pH, Conductivity & Dissolved Oxygen Instruments

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For latest product manuals:
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Documents / Resources

	omega HHSL-101 USB Digital Sound Level Data Logger [pdf] User Guide HHSL-101, HHSL-101 USB Digital Sound Level Data Logger, USB Digital Sound Level Data Logger, Digital Sound Level Data Logger, Sound Level Data Logger, Level Data Logger, Data Logger, Logger

References

- Omega Engineering | Sensing, Monitoring and Control Solutions
- Global Presence | Omega Engineering
- Omega Engineering | Sensing, Monitoring and Control Solutions